In the Claims

Applicant has submitted an amended claim set showing amended claims with insertions indicated by underlining and deletions indicated by strikeouts and/or double bracketing.

Please amend claims 6 and 8 as noted below.

Please add new claims 12-58 as shown below.

1. (Previously Presented) A method for controlling at least one thyristor constitutive of a rectifying bridge with a filtered output, comprising:

closing the thyristor when the voltage thereacross becomes greater than zero; and

making the gate current of the thyristor disappear when the current therein exceeds its latching current.

2. (Previously Presented) The method of claim 1, wherein the voltage across the thyristor is measured by a unidirectional resistive rectifying bridge.

3. (Previously Presented) The method of claim 1, wherein the latching current in the thyristor is detected by measuring the voltage thereacross.

4. (Previously Presented) A circuit for controlling at least one thyristor constitutive of a rectifying bridge with a filtered output, comprising:

a first comparator for controlling a circuit providing a gate current to the thyristor, said comparator detecting that the voltage across the thyristor becomes positive; and

an element for inhibiting the gate current circuit as soon as a current in the thyristor is greater than its latching current.

5. (Previously Presented) The circuit of claim 4, wherein said first comparator comprises a first input which receives the midpoint of a resistive dividing bridge having its terminals connected, via a diode, to the terminals of the thyristor, and a second input which receives a first reference voltage.

6. (Currently Amended) The circuit of claim 4, wherein said first comparator comprises a first bipolar transistor, the base-emitter voltage drop of which conditions ~~said~~ a first reference voltage.

7. (Previously Presented) The circuit of claim 4, wherein the gate current circuit is formed of a constant current source controlled by a switch connected to the gate of the thyristor.

8. (Currently Amended) The circuit of claim 7, wherein said first comparator comprises a first bipolar transistor, the base-emitter voltage drop of which conditions ~~said~~ a first reference voltage, and wherein the gate current circuit comprises a second bipolar transistor having its base connected to the collector of the first transistor, the emitter of the second transistor being connected to a terminal of application of a D.C. supply voltage via a resistor and its base being connected to this D.C. supply voltage by two diodes in series.

9. (Previously Presented) The circuit of claim 5, comprising:

a second comparator having an input receiving a voltage proportional to the current in the thyristor and a second input receiving a second reference voltage; and

a flip-flop, the respective set and reset inputs of which receive the outputs of the first and second comparators, and the output of which is connected to a switch for providing a gate current to the thyristor.

10. (Previously Presented) The control circuit of claim 5, controlling several thyristors.

11. (Previously Presented) A controllable rectifying bridge comprising at least one thyristor, comprising the control circuit of claim 5.

12. (New) A circuit for controlling at least one thyristor of a rectifying bridge, the circuit comprising:

an element for inhibiting a gate current of the thyristor in response to a current in the

thyristor exceeding a latching current of the thyristor.

13. (New) The circuit of claim 12, wherein the element for inhibiting a gate current of the thyristor comprises a switch.

14. (New) The circuit of claim 12, further comprising:

a current detector configured to detect the current in the thyristor.

15. (New) The circuit of claim 14, wherein the current detector has an input configured to receive the current in the thyristor and an output configured to produce a signal to control the element configured to inhibit a gate current of the thyristor.

16. (New) The circuit of claim 14, wherein the current detector comprises:

a comparator having a non-inverting input configured to receive a voltage proportional to the current in the thyristor.

17. (New) The circuit of claim 16, wherein the comparator has an inverting input configured to receive a reference voltage.

18. (New) The circuit of claim 16, wherein the comparator has an output configured to produce a control signal to control the element configured to inhibit a gate current of the thyristor.

19. (New) The circuit of claim 12, further comprising:

a voltage detector configured to detect a voltage across the thyristor.

20. (New) The circuit of claim 19, wherein the voltage detector comprises a unidirectional resistive rectifying bridge.

21. (New) The circuit of claim 19, further comprising:

a flip-flop configured to receive an output from the voltage detector and to send a control signal to the element configured to inhibit a gate current of the thyristor.

22. (New) The circuit of claim 21, further comprising:

a current detector configured to detect the current in the thyristor.

23. (New) The circuit of claim 22, wherein the current detector is configured to send a reset signal to the flip-flop.

24. (New) The circuit of claim 19, wherein the voltage detector comprises:

a transistor having a base terminal configured to receive a signal proportional to the voltage across the thyristor.

25. (New) The circuit of claim 24, wherein the voltage detector further comprises:

a resistive bridge; and

wherein the signal proportional to the voltage across the thyristor corresponds to a signal at a midpoint of the resistive bridge.

26. (New) The circuit of claim 24, wherein the transistor further comprises an emitter terminal connected to a cathode of the thyristor.

27. (New) The circuit of claim 24, further comprising:

a resistor; and

wherein the transistor has a collector terminal connected via the resistor to the element configured to inhibit a gate current of the thyristor.

28. (New) The circuit of claim 19, wherein the voltage detector comprises:

a comparator configured to produce a control signal to control the element configured to inhibit a gate current of the thyristor.

29. (New) The circuit of claim 28, wherein the comparator comprises an input configured to receive a signal proportional to the voltage across the thyristor.

30. (New) The circuit of claim 29, wherein the voltage detector further comprises:

a resistive bridge; and

wherein the signal proportional to the voltage across the thyristor corresponds to a signal at a midpoint of the resistive bridge.

31. (New) The circuit of claim 28, wherein the comparator has an input configured to receive a reference voltage.

32. (New) The circuit of claim 31, wherein the reference voltage exceeds a value of a threshold voltage of the thyristor multiplied by a constant factor.

33. (New) The circuit of claim 32, wherein the constant factor depends upon a value of a resistor of a resistive bridge.

34. (New) The circuit of claim 12, further comprising:

a current generator for generating the gate current.

35. (New) The circuit of claim 34, wherein the current generator comprises a voltage source connected to a resistor.

36. (New) The circuit of claim 34, wherein the current generator comprises:

a transistor; and

a voltage source;

wherein a first terminal of the transistor is configured to receive a voltage signal from the voltage source.

37. (New) The circuit of claim 36, wherein the first terminal of the transistor is an

emitter terminal of the transistor.

38. (New) The circuit of claim 36, wherein a second terminal of the transistor is connected to the element configured to inhibit a gate current of the thyristor.

39. (New) The circuit of claim 38, wherein the second terminal is a collector terminal of the transistor.

40. (New) The circuit of claim 36, wherein the current generator further comprises a diode connected between the voltage source and a second terminal of the transistor.

41. (New) The circuit of claim 40, wherein the second terminal of the transistor is a base terminal of the transistor.

42. (New) A method of controlling at least one thyristor of a rectifying bridge, the method comprising:

inhibiting a gate current of the thyristor in response to a current in the thyristor exceeding a latching current of the thyristor.

43. (New) The method of claim 42, wherein inhibiting a gate current of the thyristor comprises resetting a flip-flop.

44. (New) The method of claim 42, further comprising:

generating the gate current of the thyristor prior to inhibiting the gate current.

45. (New) The method of claim 42, further comprising:

detecting a current in the thyristor.

46. (New) The method of claim 45, wherein the latching current is detected by measuring a voltage across the thyristor.

47. (New) The method of claim 42, further comprising:

closing the thyristor in response to a voltage across the thyristor exceeding a threshold voltage.

48. (New) The method of claim 47, further comprising:

detecting a voltage across the thyristor.

49. (New) The method of claim 48, wherein the detection of a voltage across the thyristor is performed using a unidirectional resistive rectifying bridge.

50. (New) The method of claim 47, wherein closing the thyristor comprises setting a flip-flop.

51. (New) The method of claim 47, further comprising:

subsequent to closing the thyristor, allowing the current in the thyristor to flow if the current in the thyristor exceeds a holding current of the thyristor.

52. (New) The method of claim 47, wherein the threshold voltage is approximately zero.

53. (New) The method of claim 47, wherein the threshold voltage is proportional to a value of a resistor of a resistive bridge.

54. (New) The method of claim 53, wherein the threshold voltage is proportional to a sum of values of resistors of the resistive bridge.

55. (New) A circuit for controlling at least one thyristor of a rectifying bridge, the circuit comprising:

a current generator for generating a gate current of the thyristor; and

means for inhibiting the gate current in response to a current in the thyristor exceeding a latching current of the thyristor.

56. (New) The circuit of claim 55, further comprising:

means for detecting the current in the thyristor.

57. (New) The circuit of claim 55, further comprising:

means for detecting a voltage across the thyristor.

58. (New) The circuit of claim 57, further comprising:

means for closing the thyristor if the voltage across the thyristor exceeds a threshold voltage.